

State of California
AIR RESOURCES BOARD
Executive Order DG-009
Distributed Generation Certification of
Ingersoll-Rand Energy Systems
250SM Microturbine

WHEREAS, the Air Resources Board (ARB) was given the authority under California Health and Safety Code section 41514.9 to establish a statewide Distributed Generation (DG) Certification Program to certify electrical generation technologies that are exempt from the permit requirements of air pollution control or air quality management districts;

WHEREAS, this DG Certification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules and regulations;

WHEREAS, on May 31, 2005, Ingersoll-Rand Energy Systems applied for a DG Certification of its 250 kW, 250SM Microturbine, including its Generator Braking Resistor power-management component (model number GBR-250), and whose application was deemed complete on June 30, 2005;

WHEREAS, the 250SM Microturbine is manufactured and sold integrated with combined heat and power technology;

WHEREAS, Ingersoll-Rand Energy Systems has demonstrated that its 250SM Microturbine, complies with the minimum efficiency requirement in section 94203 (b)(1)(B);

WHEREAS, section 94203 (b)(1) allows for a credit at the rate of one megawatt-hour for each 3.4 million British Thermal Units of heat recovered to be used when calculating emission standards;

WHEREAS, Ingersoll-Rand Energy Systems has demonstrated, according to test methods specified in title 17, California Code of Regulations (CCR), section 94207 and the credit allowed in section 94203 (b)(1), that its natural-gas-fueled 250SM Microturbine has complied with the following emission standards:

1. Emissions of oxides of nitrogen no greater than 0.07 pound per megawatt-hour;
2. Emissions of carbon monoxide no greater than 0.1 pound per megawatt-hour;
3. Emissions of volatile organic compounds no greater than 0.02 pound per megawatt-hour; and

4. Emissions of particulate matter no greater than an emission limit corresponding to natural gas with a fuel sulfur content of no more than 1 grain per 100 standard cubic feet;

WHEREAS, Ingersoll-Rand Energy Systems has demonstrated that its 250SM Microturbine complies with the emissions durability requirements in title 17, CCR, sections 94203 (c);

WHEREAS, I find that the Applicant, Ingersoll-Rand Energy Systems, has met the requirements specified in article 3, title 17, CCR, and has satisfactorily demonstrated that the 250SM Microturbine meets the 2007 DG Certification emission standards for technologies integrated with combined heat and power technology;

NOW THEREFORE, IT IS HEREBY ORDERED, that a DG Certification, Executive Order DG-009, executed at Sacramento, California on October 21, 2005 is hereby granted.

This DG Certification:

- 1) is subject to all conditions and requirements of the ARB's DG Certification Program, article 3, title 17, CCR, including the provisions relating to inspection, denial, suspension, and revocation;
- 2) shall be void if the model is not manufactured and sold integrated with combined heat and power technology;
- 3) shall be void if any manufacturer's modification results in the model no longer meeting the minimum efficiency requirements in section 94203 (b)(1)(B);
- 4) shall be void if any manufacturer's modification results in an increase in emissions or changes the efficiency or operating conditions of a model, such that the model no longer meets the 2007 DG Certification emission standards for technologies integrated with combined heat and power technology; and
- 5) shall expire on October 21, 2009.

Catherine Witherspoon
Executive Officer
by

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Robert D. Fletcher, Chief
Stationary Source Division